

ABSTRACT

An injection molding nozzle with a tip portion in the gate area of the mold that has a wear-resistant diamond-type coating. The surface of the tip melt channel that delivers melt to the gate area may also comprise a diamond-type coating. Nozzle seal surfaces in the gate area may also comprise a diamond-type coating. The enhanced harness, smoothness and thermal conductivity of these coated surfaces results in higher quality molded parts, and easier to clean molding equipment that has a longer service life.